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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,076	10/17/2003	Jonathon Y. Simmons	8444.P1	8209

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Patent Counsel  
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EXAMINER

QUASH, ANTHONY G

ART UNIT

PAPER NUMBER

2881

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/688,076	SIMMONS, JONATHON, ET AL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anthony Quash	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/17/03</u> . | 6) <input type="checkbox"/> Other: ____  |

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Numeral 68a, on page 9, paragraph [00023], line 16 is not shown in the figures. Numeral 68b, on page 9, paragraph [00023], line 23 is not shown in the figures. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The abstract of the disclosure is objected to because of the following: On page 8, paragraph [00021], numerals 40a, 40b are referred to as slots, which were previously referred to as "slidable mounts". The numerals should be referred to by the same name throughout the specification. On page 9, paragraph [00021] line 2, "61a (Fig.2)"

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should be deleted and replaced by "61a (Fig. 4)". Correction is required. See MPEP § 608.01(b).

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-17 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-17 of copending Application No. 10/661,027. This is a

provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim 1 in the present application corresponds to claim 1 in application 10/661,027.

Claim 2 in the present application corresponds to claim 2 in application 10/661,027.

Claim 3 in the present application corresponds to claim 3 in application 10/661,027.

Claim 4 in the present application corresponds to claim 4 in application 10/661,027.

Claim 5 in the present application corresponds to claim 5 in application 10/661,027.

Claim 6 in the present application corresponds to claim 6 in application 10/661,027.

Claim 7 in the present application corresponds to claim 7 in application 10/661,027.

Claim 8 in the present application corresponds to claim 8 in application 10/661,027.

Claim 9 in the present application corresponds to claim 9 in application 10/661,027.

Claim 10 in the present application corresponds to claim 10 in application 10/661,027.

Claim 11 in the present application corresponds to claim 11 in application 10/661,027.

Claim 12 in the present application corresponds to claim 12 in application 10/661,027.

Claim 13 in the present application corresponds to claim 13 in application 10/661,027.

Claim 14 in the present application corresponds to claim 14 in application 10/661,027.

Claim 15 in the present application corresponds to claim 15 in application 10/661,027.

Claim 16 in the present application corresponds to claim 16 in application 10/661,027.

Claim 17 in the present application corresponds to claim 17 in application 10/661,027.

Claims 18,30-32,34-35 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-14,16-18 of copending Application No. 10/661,027. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim the same subject matter.

Claim 18 in the present application corresponds to claim 18 in application 10/661,027.

Claim 30 in the present application corresponds to claim 12 in application 10/661,027.

Claim 31 in the present application corresponds to claim 13 in application 10/661,027.

Claim 32 in the present application corresponds to claim 14 in application 10/661,027.

Claim 34 in the present application corresponds to claim 16 in application 10/661,027.

Claim 35 in the present application corresponds to claim 17 in application 10/661,027.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1- 5,19-20-29,36 are rejected under 35 U.S.C. 102(b) as being anticipated by Trueira [5,420,415]. With respect to the claim 1, Tureira [5,420,415] discloses an ion implanter electrode component (see figs. 3 and 4) for use in an ion

implanter having an electrically conductive electrode support frame and adapted to generate an ion beam comprising an electrically conductive insert member (see numerals 72-74 in figs. 11a-11c) adapted to be inserted into the ion implanter support frame (90) and/or support frame (80) (see fig. 4, col. 6 lines 5-25), the insert member comprising an electrode body portion (72) defining an aperture (78), the insert member further comprising a plurality of alignment pins (122, col. 8 lines 4-20, figs. 7a-8b), the alignment pins (122) positioned to engage the ion implanter support frame (90) and to align the aperture (78) in an aligned position relative to the ion implanter support frame (90), wherein the electrode body portion (72) is positioned to receive the ion beam passing through the aperture (78), the insert member further comprising a plurality of retention flanges (98, 81, figs. 3-4, column 6, col. 7 lines 1-35), the retention flanges (98, 81) adapted to engage ion implanter support frame (98,80) and to retain the electrode body portion 72 in the aligned position within the ion implanter support frame (98, col. 5 line 51 – col. 6 line 5, and col. 8 lines 4-20).

As per claim 2, Tureira [5,420,415] discloses the alignment pins (122) having a cylindrical pin body portion, which defines a cylindrical outer surface adapted to engage the ion implanter support frame (80,90, see fig. 8A and col. 8 lines 5-40).

As per claim 3, Tureira [5,420,415] discloses each alignment pin (screw) having a pin (screw) body which defines an outer surface adapted to engage the ion implanter insert member alignment slot base surface, and a retention cap (col. 7 lines 30-35) having a width wider than the width of the pin (screw) body portion wherein each



alignment pin (screw) retention cap defines a retention flange. See Tureira [5,420,415] figs. 3-4, col. 5 lines 25-30, col. 7 lines 1-40, col. 8 lines 5 – col. 9 line 15.

As per claim 4, Tureira [5,420,415] discloses the alignment pins (122), retention flange (98, see figs. 3-4), and the electrode body portion (72) being integrally formed wherein the insert member (72) is a one-piece member. See Tureira [5,420,415] col. 6 lines 25-68, and column 7.

As per claim 5, Tureira [5,420,415] discloses the support frame (80) having a flat face portion (73,74) and the insert member (72) having a flat face portion (fig. 11b), and wherein the insert member flat face portion is positioned engaged face to face with the support frame flat face portion (73-74) in the aligned and retained position. See Tureira [5,420,415] figs. 11a-11c, and col. 5 lines 50-68.

As per claim 19, Tureira [5,420,415] discloses an electrically conductive support frame (90) adapted to generate an ion beam, comprising an electrically conductive insert member (72-74, fig. 11a-11c), adapted to be inserted into the ion implanter support frame (80,90, fig. 4 col. 6 lines 6-10), the insert member comprising body portion (72) defining an aperture (78), the insert member defining a plurality of alignment slots (105, col. 8 lines 30-41) each slot (105) having a base surface which defines an alignment surface adapted to engaged by a support frame alignment pin (alignment screws 104a,104b), to align the insert member aperture (78, figs. 3-4, col. 8 lines 5-41), in an aligned position relative to the ion implanter support frame wherein the electrode body portion is positioned to receive the ion beam passing through the insert member aperture , the insert member further comprising a plurality of retention flanges

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(81,98) to retain the electrode body portion in the aligned position within the ion implanter support frame and electrically coupled to the support frame. See Tureira [5,420,415] figs. 3-4, col. 7 lines 1-55, and col. 8 lines 1-68.

As per claims 20-22, Tureira [5,420,415] discloses each alignment pin (screw) having a pin (screw) body which defines an outer surface adapted to engage the ion implanter insert member alignment slot base surface, and a retention cap (col. 7 lines 30-35) having a width wider than the width of the pin (screw) body portion wherein each alignment pin (screw) retention cap defines a retention flange. Tureira [5,420,415] also discloses each cylindrical pin (screw) body portion which defines a cylindrical outer surface adapted to engage the ion implanter insert member alignment slot base surface and wherein the component is made of graphite. See Tureira [5,420,415] figs. 3-4, col. 5 lines 25-30, col. 7 lines 1-40, col. 8 lines 5 – col. 9 line 15.

As per claim 23, Tureira [5,420,415] discloses the support frame (80) having a flat face portion (73,74) and the insert member (72) having a flat face portion (fig. 11b), and wherein the insert member flat face portion is positioned engaged face to face with the support frame flat face portion (73-74) in the aligned and retained position. See Tureira [5,420,415] figs. 11a-11c, and col. 5 lines 50-68.

As per claim 24, Tureira [5,420,415] discloses an electrically conductive electrode support frame which defines an aperture and an electrically conductive insert member adapted to be inserted into the ion implanter support frame, the insert member comprising an electrode body portion defining an aperture and adapted to be inserted into the support frame aperture, the insert member further comprising first and second

alignment surfaces of which the first alignment surface being groove-shaped, wherein the support frame further comprises a first alignment pin positioned to engage the ion implanter insert member groove-shaped first alignment surface and a second alignment pin positioned to engage the ion implanter insert member second alignment surface to align the insert member aperture in an aligned position relative to the ion implanter support frame wherein the electrode body portion is positioned to receive the ion beam passing through the aperture, the insert member further comprising a plurality of retention flanges adapted to engage the ion implanter support frame and to retain the electrode body portion in the aligned position within the ion implanter support frame and electrically coupled to the support frame. See Tureira [5,420,415] abstract, figs. 1-8b, col. 5 lines 50 – column 8.

As per claim 25, Tureira [5,420,415] discloses the alignment pins (122) having a cylindrical pin body portion, which defines a cylindrical outer surface adapted to engage the ion implanter support frame (80,90, see fig. 8A and col. 8 lines 5-40).

As per claim 26, Tureira [5,420,415] discloses each alignment pin (screw) having a pin (screw) body which defines an outer surface adapted to engage the ion implanter insert member alignment slot base surface, and a retention cap (col. 7 lines 30-35) having a width wider than the width of the pin (screw) body portion wherein each alignment pin (screw) retention cap defines a retention flange. See Tureira [5,420,415] figs. 3-4, col. 5 lines 25-30, col. 7 lines 1-40, col. 8 lines 5 – col. 9 line 15.

As per claim 27, Tureira [5,420,415] discloses the alignment pins (122), retention flange (98, see figs. 3-4), and the electrode body portion (72) being integrally formed

wherein the insert member (72) is a one-piece member. See Tureira [5,420,415] col. 6 lines 25-68, and column 7.

As per claim 28, Tureira [5,420,415] discloses the support frame (80) having a flat face portion (73,74) and the insert member (72) having a flat face portion (fig. 11b), and wherein the insert member flat face portion is positioned engaged face to face with the support frame flat face portion (73-74) in the aligned and retained position. See Tureira [5,420,415] figs. 11a-11c, and col. 5 lines 50-68.

As per claim 29, Tureira [5,420,415] discloses a spring (71) positioned between the insert member and the support frame to bias the insert member in the aligned and retained position. See Tureira [5,420,415] figs. 1-8b, col. 5 lines 50-68.

As per claim 36, Tureira [5,420,415] discloses an ion extraction electrode component for use in an ion implanter having an electrically conductive electrode support frame having round alignment pins, and adapted to generate an ion beam comprising, a one piece electrically conductive insert member adapted to be inserted into the ion implanter support frame, the insert member comprising an integral electrode body portion defining an aperture, the insert member further defining a plurality of rectangular alignment slots, each alignment slot having a base surface which defines an alignment surface adapted to be engaged by a support frame alignment pin (screw) to align the insert member aperture in an aligned position relative to the ion implanter support frame, wherein one base alignment surface is groove shaped. See Tureira [5,420,415] abstract, figs. 1-8b, col. 1 lines 50-68, col. 2 lines 25-68, col. 5 lines 50-68, columns 6-8.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent and Published Patents 5,959,396 to Moreshead et al, 6,079,355 to Lou et al, 5,523,652 to Sferlazzo et al, 5,554,854 to Blake, and 2003/0197129 to Murrell et al, are considered pertinent to applicants' disclosure. Moreshead [5,959,396] is considered pertinent due to its discussion on a high current nova dual slit electrode enhancement. Lou [6,079,355] is considered pertinent due to its discussion on an alignment aid for an electrode plate assembly. Sferlazzo [5,523,652] is considered pertinent due to its discussion on a microwave energized ion source for ion implantation. Blake [5,554,854] is considered pertinent due to its discussion on an in situ removal of contaminants from the interior surfaces of an ion beam implanter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Quash whose telephone number is (571)-272-2480. The examiner can normally be reached on Monday thru Friday 9 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571)-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

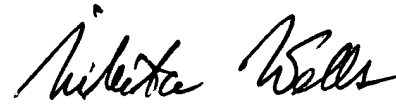
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. Quash



12/23/04



NIKITA WELLS  
PRIMARY EXAMINER

12/27/04